

REMARKS/ARGUMENTS

The present Amendment is responsive to the final Office Action dated November 3, 2009. A two-month extension of time extending the period of reply from February 3, 2010 up to and including Monday, April 5, 2010 is submitted herewith. A Request For Continued Examination (RCE) is also submitted herewith.

Claims 21, 23-27, 29, and 30 were rejected in the Action. Independent claim 21 is amended and no claims are added or cancelled herein. Therefore, claims 21, 23-27, 29, and 30 remain pending in the present application. Support for amended claims can be found in Applicants' originally filed disclosure. Thus, no new matter has been added herein. Applicants set forth the following remarks in response to the Action.

In the Action, the Examiner objected to the drawings stating that the drawings must show every feature of the invention specified in the claims. The Examiner asserted that the claimed "circular groove" must be shown, or the feature canceled from the claims. The Examiner further asserted that while a groove can be said to be illustrated, the view presented in the drawings was only a side view, and thus it cannot be said that the groove was circular or even that it extended about the entire top surface. FIG. 1b, for instance, shows a side view of the baseplate having a groove. Further, FIG. 1c shows a top view wherein the groove is circumferential and having a circumferential vertebral body contact element secured thereto. Applicants have amended independent claim 21 herein to recite "circumferential groove" rather than circular groove. Applicants respectfully submit that this claim amendment is fully supported by at least FIG. 1c and overcomes the present objection to the drawings.

Further, the Examiner rejected claims 21, 23-

27, 29, and 30 under 35 U.S.C. § 112 first paragraph as failing to comply with the written description requirement. The Examiner asserted that the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Examiner further asserted that the "circular groove" limitation in claim 21 was not found in the written disclosure and is thus new matter. Applicants refer to paragraphs [0109] and [0110] of the present application stating, in part, that "each baseplate 10,30 comprises a vertebral body contact element (e.g., a convex mesh 14,34, preferably oval in shape) that is attached to the outwardly facing surface 12,32 of the baseplate 10,30 to provide a vertebral body contact surface." The Examiner asserted in the Action that these paragraphs do not even mention that there is a groove in the surface. While a groove is not specifically mentioned in these paragraphs, once again, the vertebral body contact element is shown attached to a groove in the outwardly facing surface of a baseplate in at least FIGS. 1b and 1c, for example. There is thus clear support in the specification of a vertebral body contact element attached to a groove in the outwardly facing surface of a respective baseplate. Further, while the specification discloses that the vertebral body contact element is preferably oval in shape, the Examiner asserted the claimed recitation "circular" is broader. As stated above, independent claim 21 has been amended to recite a "circumferential groove."

Further still, the Examiner then asserted that the specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. The Examiner specifically objects to the claimed recitations "circular

groove" and "a convex central portion in a downwardly bent perimeter" of the vertebral body contact element. As clearly shown in FIGS. 1b and 1c, for example, there is a circumferential groove in the baseplates and the vertebral body contact element has a downwardly bent perimeter with a convex central portion. In light of amended claim 21, Applicants respectfully request that the 112 rejection of the claims and the objection to the specification be withdrawn.

Further in the Action, claims 21, 23-27, 29, and 30 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pat. No. 6,723,127 and U.S. Pat. No. 7,122,055 to Errico *et al.* ("Errico"), claims 21, 23, 24, 26-30, and 41 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Pat. No. 5,370,697 to Baumgartner ("Baumgartner") in view of U.S. Pat. No. 5,926,685 to Krebs *et al.* ("Krebs") and U.S. Pat. No. 4,759,769 to Hedman *et al.* ("Hedman") and U.S. Pat. Pub. No. 2003/195514 to Trieu *et al.* ("Trieu"), and claim 25 was rejected under 35 U.S.C. § 103(a) as being obvious over Baumgartner in view of Krebs and Hedman and Trieu as applied to claim 21 on page 5 of the Office Action, and further in view of U.S. Pat. No. 4,969,907 to Koch *et al.* ("Koch").

With the respect to the § 102(b) rejection of the claims in view of the Errico patents, the Examiner stated that these references have a common assignee with the instant application, and that they constitute prior art under 35 U.S.C. § 102(e) based upon the earlier effective US filing date of these references. Applicants respectfully traverse. The effective US filing date of these references is June 21, 2002. The present application claims priority to U.S. Patent Nos. 7,563,285 ("the '285 Patent") and 7,604,664 ("the '664 Patent") filed June 19, 2002 and May 20, 2002, respectively, which both provide support for the claimed subject matter. Therefore, both the '285 and '664 Patents have earlier effective US filing dates than the cited references. Thus, U.S. Patent Nos. 6,723,127

and 7,122,055 do not constitute prior art under 35 U.S.C. §102(e). Applicants respectfully assert that this rejection of the claims is overcome.

Further in the Action, the Examiner rejected claims 21, 23, 24, 26-30, and 41 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,370,697 to Baumgartner ("Baumgartner") in view of U.S. Patent No. 5,926,685 to Krebs *et al.* ("Krebs") in view of U.S. Patent No. 4,759,769 to Hedman *et al.* ("Hedman") and U.S. Patent Application Publication No. 2003/195514 to Trieu *et al.* ("Trieu"). Specifically, the Examiner asserted that Hedman teaches a circular groove and that it would have been obvious for one of ordinary skill in the art to modify the groove of Hedman to accommodate the mesh structure of Baumgartner to be circular, and to have the perimeter of the mesh bent downwardly as taught by Trieu as modified by Krebs such that the mesh or vertebral body contact element is effectively retained in a groove and the stress to deflect under a load is prevented by bending downward to correspond to the groove.

Here, the Examiner is using hindsight reconstruction to pick teachings in the cited references and combine them in order to attempt to support a *prima facie* case of obviousness. As described in the specification of the present application, an objective of having a vertebral body contact element having a downwardly bent perimeter retained within a circumferential groove in an outwardly facing surface of a baseplate, and a central portion spaced from the outwardly facing surface of the baseplate, is so that the vertebral body contact element could deflect as necessary under anatomical loads. There is nothing anywhere in the teachings of any of the cited references regarding structuring a vertebral body contact element inside

any type of groove formed in a baseplate such that the vertebral body contact element can deflect as necessary.

Applicants refer the Examiner to paragraphs [0042] and [0043] of Trieu for instance:

The annulus repair system and methods include a blocking member retained by one or more attachment portions within or adjacent a defect in the annulus fibrosis of a spinal disc. *The blocking member can block all or a portion of the defect or void within the annulus fibrosis, such as may be caused by surgery or disc herniation.* The one or more attachment portions can be connectable to or integrally formed with the blocking member. The attachment portions may be engaged to soft tissue and/or hard tissue or bone adjacent to the defect or void. Thus, the attachment portions retain the blocking member in a substantially fixed position within the defect or void relative to adjacent soft or hard tissue.

With respect to the various embodiments described herein, the attachment portion can be joined or fixed to the blocking member using various devices and/or techniques, or can be integrally formed with or an extension of the blocking member. The blocking member can be joined or attached to the attachment portion by, for example, sewing the attachment portion to the blocking member, thermal welding or bonding, adhesive bonding, three dimensional weaving or braiding, screws, staples, pins, tacks or rivet fixation. Furthermore, the attachment portion can be secured to the blocking member either before or after the blocking member is placed into or adjacent to the annulus defect. (emphasis added).

Blocking member 352 is shown in Fig. 14 of Trieu as being joined to the attachment portion of the prosthetic repair device. Blocking member 352 is not a vertebral contact element. Further, it is not positioned to contact a vertebral body, but instead, is position and used to "block all or a portion of the defect or void within the annulus fibrosis, such as may be caused by surgery or disc herniation." Further, there is no teaching in Trieu of structuring blocking member 352 to attach

inside any type of groove formed in the attachment portion of the device shown in Fig. 14 such that the blocking member 352 can deflect as necessary under anatomical loads. The cited references thus do not disclose, teach, or suggest this claimed limitation.

Applicants understand that some degree of hindsight is used in combining teachings of references; however, there is no common sense reason one of ordinary skill in the art at the time of the present invention would combine the cited references. To this extent, Applicants respectfully submit that one skilled in the art would not look to secure element 44 of Baumgartner to plate 2 thereof by adding a circumferential groove to plate 2. There would be no reason to place a vertebral body contact element having a downwardly bent perimeter in a groove in plate 2 of Baumgartner, let alone a circumferential groove, because the entire length of element 44 seems to be structured to conform to the bone of vertebral body 32 that it comes in contact with. Further, because the length of element 44 basically extends further than the edge of plate 2, a groove could not be put in plate 2 to come in contact with the perimeter of element 44, let alone a downwardly bent perimeter as claimed. These are all reasons why there is no circumferential groove in Baumgartner and why one skilled in the art would not look to Baumgartner for retaining a compressible member having a downwardly bent perimeter in a groove as asserted by the Examiner.

For the foregoing reasons, Applicants submit that independent claim 21 is not obvious over Baumgartner in view of Krebs and Hedman and Trieu. Claims 23-27, and 29-30 depending from independent claim 21 not obvious, *inter alia*, by virtue of their dependence from independent claim 21. A dependent claim is necessarily narrower than an independent claim from which it

properly depends. The other cited reference, namely Koch cannot be used to cure the deficiencies of Baumgartner, Krebs, Hedman and Trieu. Therefore, claim 25 is not rendered obvious by Baumgartner in view of Krebs, Hedman, Trieu, and Koch. Claim 25 is unobvious, *inter alia*, by virtue of its dependence from independent claims 21.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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